

Surface Water Ambient Monitoring Program (SWAMP)

Program Goal & Vision

Adequate and accurate monitoring and assessment are the cornerstones to preserving, enhancing and restoring water quality. The information gathered from monitoring activities is critical to protect the beneficial uses of water, to develop water quality standards, conduct federal Clean Water Act assessments and to determine the effects of pollution and of pollution prevention programs.

The SWAMP VISIONS are:

- That water quality is comprehensively measured to protect beneficial uses, and to evaluate our protection and restoration efforts.
- To define a complete set of monitoring objectives, based on beneficial use attainment and reflecting the full range of regulatory responsibilities and water quality programs for all waterbody types.
- To develop and implement a monitoring design that maximizes our ability to meet our monitoring objectives with existing resources.
- To develop and implement a set of monitoring indicators (and assessment thresholds), which can be used to track the status and trends of water quality and to evaluate the effectiveness of management actions to improve water quality in California.
- To develop and implement a progressive quality assurance program using a systems-based approach to the generation and storage of application-appropriate data/metadata.
- To make credible ambient monitoring data available to all stakeholders in a timely manner.
- To provide a consistent science-based framework for the evaluation of monitoring data relative to state and regional standards and the protection of beneficial uses and for tracking the effectiveness of management actions.
- To report all collected data as information and in a timely and publicly accessible manner.
- To conduct periodic reviews of each aspect of the program to determine its scientific validity and how well it serves the water quality decision needs of the state.
- To provide the support needed to implement a coordinated and comprehensive monitoring and assessment program.

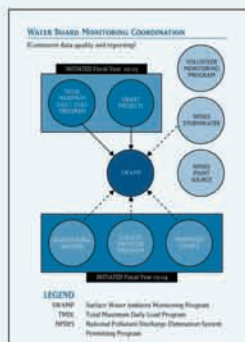


Monitoring Framework (National Water Quality Monitoring Council)



SWRCB & RWQCB Boards Coordination

- Capture Monitoring Data
- Ensure Data Comparability
- Coordinate for QA and Data Formats
- Programs Involved:
 - Regional Watershed Assessments
 - TMDLs
 - Grant Projects
 - Aquatic Pesticide Monitoring
 - Waivers
 - Clean Water Team (volunteer groups)
 - Fish/Shellfish Bioaccumulation



Ten Basic Elements of a State Water Monitoring and Assessment Program

- 1) Monitoring Program Strategy
- 2) Monitoring Objectives
- 3) Monitoring Design
- 4) Core Indicators of Water Quality
- 5) Quality Assurance
- 6) Data Management
- 7) Data Analysis/Assessment
- 8) Reporting
- 9) Programmatic Evaluation
- 10) General Support & Infrastructure

SWAMP Participants

- State Water Resource Control Board
- Regional Water Quality Control Boards
- Department of Fish & Game
 - Marine Pollution Studies Laboratory, Granite Canyon
 - Marine Pollution Studies Laboratory, Moss Landing
 - Fish and Wildlife Water Pollution Control Laboratory, Nimbus
 - Aquatic Bioassessment Laboratory, Nimbus

Monitoring Design



To find out how to be comparable with SWAMP, see:

<http://mpsl.mlmf.calstate.edu/swcompare.htm>

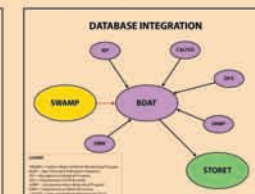
Quality Assurance

- QA Team
- QA Toolbox
- QA Website
www.waterboards.ca.gov/swamp/qapp.html
- QA "Expert System" software



Data Management

- Make data available in a timely manner
- An accessible electronic data system
- Metadata and geo-locational standards
- Database support and training
- Data will be available through CEDEN
- Data will be uploaded to EPA's STORET



STATEWIDE SWAMP MONITORING

State and Regional Monitoring Components

- Very to scale of monitoring objectives and design
- Statewide monitoring
 - Statewide monitoring objectives and design
 - Statewide monitoring program
 - Statewide monitoring data
 - Statewide monitoring report
- Regional monitoring
 - Regional monitoring objectives and design
 - Regional monitoring program
 - Regional monitoring data
 - Regional monitoring report



Perennial Wadeable Streams Monitoring



SWAMP Training Track

- All SWAMP "partners?"
- Use of SWAMP "toolbox"
- Introductory Monitoring Design
- Design
- SWAMP Field Methods (CD rom)
- Introductory Quality Assurance
- SWAMP Advisor
- SWAMP Data Management
- SWAMP Collaboration Workshop
- Annual mtg - CA Bioassessment Workgroup
- SWAMP for Ag. Coalitions
- Monitoring Grant Project Effectiveness

